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NOTE

BARRIER ISLANDS: THE CONFLICT BETWEEN FEDERAL PROGRAMS THAT PROMOTE PRESERVATION AND THOSE THAT PROMOTE DEVELOPMENT

I. INTRODUCTION

Some 280 barrier islands line the Atlantic and Gulf Coasts of the United States.¹ Erosion and the constant flow of unconsolidated sands render these islands locationally and structurally unstable,² but the constant erosion does not result in a permanent loss of sand; rather, it causes a "strategic retreat" of these islands toward the mainland.³ Compelling reasons exist to preserve these ephemeral land formations: the islands reduce the destructive force of storms approaching the mainland, provide diverse recreational opportunities to the public, and are the habitat of numerous birds, fish, and other wildlife.⁴

1. W. KAUFMAN & O. PILKEY, *THE BEACHES ARE MOVING* 113 (1979)[hereinafter cited as KAUFMAN & PILKEY]. Barrier Islands "are the most significant coastal feature of the U.S. East Coast from Maine to Texas. Only relatively short sections of the shore are without barrier islands. As a result, the U.S. has the longest and best evolved chain of barrier islands in the world." U.S. DEP'T OF INTERIOR, *ALTERNATIVE POLICIES FOR PROTECTING BARRIER ISLANDS ALONG THE ATLANTIC AND GULF COASTS OF THE UNITED STATES AND DRAFT ENVIRONMENTAL STATEMENT* 57 (1979)[hereinafter cited as PROTECTING BARRIER ISLANDS].

2. See KAUFMAN & PILKEY, *supra* note 1, at 24; U.S. DEP'T OF INTERIOR, *REPORT OF THE BARRIER ISLAND WORK GROUP 4* (1978)[hereinafter cited as WORK GROUP REPORT].

3. KAUFMAN & PILKEY, *supra* note 1, at 24.

4. Sharma, *Hazard Mitigation on Barrier Islands and Beaches*, in 2 *COASTAL ZONE '80*, 1450 (B. Edge ed. 1980)[hereinafter cited as Sharma]. Typically, barrier islands are characterized by a straight belt of sand slightly offshore. The islands have three basic divisions: a beach on the seaward side with a broad berm, a dune belt, and an inner barrier flat or salt marsh. Shepard, *Gulf Coast Barriers*, in *BARRIER ISLANDS* 114 (M. Schwartz ed. 1973). The dunes are important to island erosion control. They reduce the destructibility of flood waters by decreasing wave velocity. Without dunes, the islands would become sandbars. The dunes' greatest contribution, however, is not as a barrier to the sea but as a reservoir of sand. Sand is blown from a dune into its lee, washed up on

Although their location makes them both aesthetically and financially attractive for residential and commercial development, the delicate ecological balance that fosters the survival of the barrier islands can be upset by efforts to develop them. The islands are constantly migrating, but man-made structures built on them are fixed. The inherent incompatibility between natural migration and development of the islands has led to efforts to stabilize the islands. These efforts to make the barrier islands more conducive to human habitation inevitably result in a permanent form of erosion that causes the islands to dissolve into the sea.⁵

Currently, no comprehensive strategy exists for preserving the barrier islands.⁶ The administration of thirty different programs by twenty separate federal agencies⁷ often produces unanticipated results.⁸ Individual agencies often make no effort to determine the effect on the barrier islands of their actions in combination with programs being simultaneously implemented by other agencies. Flood insurance, disaster loans, wastewater treatment, bridge and highway construction, and erosion control programs provide added incentive for the development of the barrier islands. This increased incentive enhances the likelihood that the islands will be lost to erosion and places these programs in direct conflict with preservation efforts of acquisition and wilderness designation projects administered by other federal agencies. Moreover, federal programs that effectively encourage development of the barrier islands vitiate the preservation policies enunciated in the National Environmental Policy Act⁹ and the Coastal Zone Management Act.¹⁰

the beach, and eventually reincorporated into a dune. KAUFMAN & PILKEY, *supra* note 1, at 109-11. This activity provides long-term stability to the shoreline. Because dune formations are fragile, "activities of man that cause even slight alterations to them may lead to significant disruptions. Once the barrier dune is weakened, its valuable functions are impaired, and it no longer serves its unique protective role." J. CLARK, COASTAL ECOSYSTEM MANAGEMENT 96 (1977)[hereinafter cited as J. CLARK].

Recreation has been a prime incentive for island development. In 1976, there were twenty-two million recreational visits to the ten barrier islands administered by the National Park Service. WORK GROUP REPORT, *supra* note 2, at 38.

5. KAUFMAN & PILKEY, *supra* note 1, at 25.

6. Sharma, *supra* note 4, at 1450.

7. *Id.*

8. PROTECTING BARRIER ISLANDS, *supra* note 1, at iii.

9. 42 U.S.C. §§ 4321-4361 (1976).

10. 16 U.S.C. §§ 1451-1464 (1976).

This article will examine the effects of various government programs that concern the barrier islands in order to demonstrate that the continuation of inconsistent programs will inevitably result in irreversible harm to the islands.

II. FEDERAL PROGRAMS THAT PROMOTE BARRIER ISLAND DEVELOPMENT

A. National Flood Insurance

The National Flood Insurance Program,¹¹ administered by the Federal Insurance Administration, covers more than sixty billion dollars worth of policies and pays out more than three dollars for every dollar collected in premiums.¹² The ready availability of flood insurance increases the incentive for developers to locate on barrier islands by diminishing the specter of potential economic loss from flooding.¹³

Nevertheless, efforts are underway that may discourage barrier island development. The Secretary of Housing and Urban Development has been authorized to work with other agencies to identify and publish data concerning special flood hazard areas in the floodplains and to establish flood risk zones.¹⁴ Although the Federal Insurance Administration has done little in the past to reduce flood losses in coastal floodplain areas, it is now developing flood insurance rate maps in an attempt to reduce flood losses by identifying floodprone and flood hazard areas.¹⁵ Once mapping has been completed and high risk areas are identified, it is likely that insurance rates will increase in those areas and that construction standards for buildings will become stricter.¹⁶ Despite a high rate of participation by communities in the mapping program, completion of the mapping procedure by the congressionally mandated date of 1983 appears unlikely,¹⁷ due in part to the Reagan Administration's reduction of the

11. 42 U.S.C. §§ 4001-4128 (1976).

12. Sharma, *supra* note 4 at 1454.

13. WORK GROUP REPORT, *supra* note 2, at 72.

14. 42 U.S.C. § 4014 (1976).

15. PROTECTING BARRIER ISLANDS, *supra* note 1, at 17.

16. *Id.* at 24.

17. On April 10, 1981, 4,500 rate studies remained to be completed. Interview with Richard Krimm, former Acting Administrator of the Flood Insurance Administration, by telephone (Apr. 10, 1981).

Federal Insurance Administration's budget.¹⁸

Although the influence of the National Flood Insurance Program on the barrier islands cannot be precisely determined, the program's potential for encouraging development of barrier islands deserves consideration. In the past, the Flood Insurance Program has directed incentives toward construction modifications in buildings. By establishing requirements that "new construction or reconstruction be located landward of the reach of the mean high tide,"¹⁹ the Federal Insurance Administration could encourage beach protection rather than degradation.²⁰ Most important, insurance rates should be changed to reflect *all* risks associated with locating on barrier islands. Ideally, flood insurance to new island residents should be eliminated, and only continued coverage for existing structures should be allowed.²¹

B. Disaster Loans

In addition to the provision of flood insurance, the federal government assists barrier island development through other disaster relief programs.²² The Small Business Association administers two disaster loan programs that promote island development by encouraging disaster victims to remain on the islands.²³ Under the Economic Injury Disaster Loans program, businesses may obtain low-interest loans "to pay certain liabilities and to continue business in operation until 'normal' conditions are restored."²⁴ Under this program, funding is not available for real estate purposes or for the repair or acquisition of equipment.²⁵ This void is filled by the Physical Disaster Loans program, which provides low-interest loans for the repair or replacement of realty, equipment, or other property destroyed in a

18. *Id.*

19. PROTECTING BARRIER ISLANDS, *supra* note 1, at 24.

20. *Id.*

21. Current members of Congress have contemplated eliminating from the federal budget federal flood insurance for new construction or substantial improvements of structures on undeveloped barrier islands. 127 CONG. REC. H5,792 (daily ed. July 31, 1981)(remarks of Rep. Evans).

22. Federal disaster relief and recovery programs amount to over \$3.36 billion annually. Sharma, *supra* note 4, at 1455.

23. See PROTECTING BARRIER ISLANDS, *supra* note 1, at 26.

24. WORK GROUP REPORT, *supra* note 2, at 76.

25. *Id.*

disaster.²⁶

In the future, the Small Business Association should consider the barrier islands' high vulnerability to natural disasters²⁷ before approving loan requests.²⁸ Moreover, it should offer incentives to reduce barrier island development, such as special interest rates for disaster victims who relocate on the mainland.

C. Wastewater Treatment Facility Grants

Sewage treatment on the barrier islands presents unique problems. Septic tanks are ill-suited for the islands because the high water table and high permeability of the soil allow contaminants from septic tanks to enter the limited groundwater supply. Consequently, sewage disposal must be accomplished by treatment facilities. In 1975, 3.5 million dollars was made available to barrier island communities for sewer and water purposes.²⁹

When funding wastewater projects, the government has not given adequate consideration to the incentive that sewage treatment facilities provide for island development.³⁰ In the past, funds have been provided for the construction of treatment plants with capacities far in excess of an island's current needs.³¹ Construction of facilities with the capacity to accommodate substantial future growth stimulates further development of the barrier islands.³²

In addition to increasing the development potential of the islands, wastewater treatment plants may have a substantial di-

26. *Id.* Physical disaster loans may be provided only if the disaster has occurred in "an area designated as eligible for assistance because of floods and other catastrophes." *Id.*

27. A hurricane "is the second most destructive, violent, and costly natural event that occurs on an annual cycle." WORK GROUP REPORT, *supra* note 2, at 27. The powerful winds of hurricanes are "generally in their most destructive state when they blow on land, precisely at the location of the barrier islands." *Id.*

28. PROTECTING BARRIER ISLANDS, *supra* note 1, at 26.

29. WORK GROUP REPORT, *supra* note 2, at 75.

30. *Id.* at 74.

31. *Id.*

32. *Id.* The Federal Water Pollution Control Act § 201, 33 U.S.C. § 1281 (1976), authorizes grants for wastewater treatment facilities. Funding for these facilities is provided by the Environmental Protection Agency, the Department of Housing and Urban Development, the Farmers Home Administration in the Department of Agriculture, and the Economic Development Administration in the Department of Commerce. WORK GROUP REPORT, *supra* note 2, at 74.

rect impact upon the local environment.³³ Current requirements necessitate an environmental impact statement for a proposed project only when opposition to the construction arises.³⁴ The Environmental Protection Agency (EPA), which is but one source of available funds,³⁵ has now begun to recognize the consequences of its actions with respect to the barrier islands. Its Region IV office³⁶ has issued a relevant draft policy statement that permits EPA approval and funding of wastewater facilities only upon a showing that the project is "environmentally compatible" with the island.³⁷

A careful consideration of the environmental implications of wastewater treatment facilities requires examination of an island's current needs. When determination of the optimum capacity for a proposed facility is based on the current needs of the community rather than on future needs, further island development will be discouraged.

D. Bridge and Highway Construction Programs

The United States Coast Guard must issue permits for construction of bridges which would provide access from the mainland to barrier islands.³⁸ When approving or denying these permits, the Coast Guard's primary consideration is whether the proposed structure will "provide for the reasonable needs of navigation."³⁹ Although the Coast Guard must comply with federal environmental statutes⁴⁰ when evaluating applications for bridge construction, it has not thus far denied a permit for environmental reasons.⁴¹

Federal funding is also available for barrier island highway construction. From 1976 to 1978, more than thirty-seven million

33. See WORK GROUP REPORT, *supra* note 2, at 75.

34. *Id.* at 74.

35. See note 32 *supra*.

36. South Carolina is in Region IV.

37. COASTAL ZONE MANAGEMENT, Dec. 3, 1980, at 3.

38. PROTECTING BARRIER ISLANDS, *supra* note 1, at 33.

39. WORK GROUP REPORT, *supra* note 2, at 65.

40. *E.g.*, National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321-4361 (1976).

41. WORK GROUP REPORT, *supra* note 2, at 65. NEPA requires federal agencies to prepare an environmental impact statement for "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C).

dollars in federal funds was expended for island road development.⁴² The availability of federal financial assistance for transportation improvements makes it "practical and more economically rewarding to convert from low- to high-density developments."⁴³

Federal bridge and highway construction policies facilitate barrier island development by permitting improved access to the islands.⁴⁴ Once transportation to and around the islands has been facilitated, the potential for recreational, residential, commercial, and industrial development increases.⁴⁵ Future development could be discouraged by limiting access to the islands.⁴⁶ As an alternative to automatic approval of construction of new bridges, the Coast Guard might consider other, less convenient means of access such as ferries.⁴⁷ In addition, before approving or funding bridges and highways, government agencies should determine the environmental impact of the project, including the indirect environmental impact that results from increased development.⁴⁸ "In many cases there will be little real justification for road and bridge access to a location under consideration, and alternative modes of travel will give a more acceptable environmental, social, and economic balance."⁴⁹

E. Erosion Control Projects

Island migration is perhaps the greatest threat to barrier island development. Although migration is frequently called "erosion," "it is more accurately termed 'retreat' since the island moves as a complete ecological unit."⁵⁰ Attempts to control this "retreat" through erosion minimization projects impede the natural migration essential to barrier island existence.⁵¹ Left unde-

42. WORK GROUP REPORT, *supra* note 2, at 66.

43. *Id.*

44. *Id.* at 64.

45. *Id.* at 64, 67.

46. *Id.* at 65.

47. Ferry service may be impractical for some areas because of high costs and adverse environmental effects. See, e.g., *Sierra Club v. Hassell*, 636 F.2d 1095 (5th Cir. 1981).

48. J. CLARK, *supra* note 4, at 485.

49. *Id.*

50. WORK GROUP REPORT, *supra* note 2, at 14.

51. Sharma, *supra* note 4, at 1451. For a discussion of the "retreat" process and the effects of its disruption, see note 4 *supra*.

veloped, the islands suffer no erosion "problems." Difficulties arise only when man infringes upon these inherently unstable areas.

The United States Army Corps of Engineers uses such forms of erosion control as seawalls,⁵² groins,⁵³ sand nourishment,⁵⁴ and dune reconstruction.⁵⁵ These projects are costly⁵⁶ and, in many instances, counterproductive.⁵⁷ Moreover, erosion minimization projects encourage further development of the islands. "Such erosion control projects give a false sense of security and encourage high density development after the projects because the Corps does not require any population or density ceiling as a precondition for funding these projects."⁵⁸ Although the Corps' shoreline stabilization projects have an assumed lifetime of fifty to one hundred years,⁵⁹ their beneficial effect is likely to last only a fraction of this time because movement of the islands continues inexorably.

To establish effective alternatives for shoreline stabilization, "[a] wholistic management approach is needed, where the interrelationships among natural processes (principally inlet dynamics and overwash) and responses (primarily beaches, dunes, and salt marshes) are clearly defined."⁶⁰ This type of approach con-

52. Seawalls are erected parallel to the beach to protect the land from the force of water. Although seawalls prevent erosion of the land behind them, the deflection of wave energy to the base of the walls eventually causes the beach to narrow and lose its slope. WORK GROUP REPORT, *supra* note 2, at 22.

53. Groins are piles of rocks or wooden structures built perpendicular to the beach to trap sand as it moves down the shore. The resulting accretion on one side of the groin causes an obstruction of sand and water movement along the shore. The net effect is a depletion of sand downbeach. WORK GROUP REPORT, *supra* note 2, at 68.

54. Beach nourishment projects import sand and deposit it on the beach. Unless the grain size of deposited sand matches existing sand, the deposited sand will erode quickly. KAUFMAN & PILKEY, *supra* note 1, at 29.

55. In dune reconstruction, sand is bulldozed to a level above the high tide mark to create an artificial dune. This process, however, prevents overwash of flood waters during storms. KAUFMAN & PILKEY, *supra* note 1, at 109. Because overwash is essential to barrier island migration, *id.* at 98, dune reconstruction causes the island to erode rather than migrate. *Id.* at 110.

56. In 1977, the Corps expended \$272.8 million on barrier island and beach erosion control, flood control, and hurricane protection projects. Sharma, *supra* note 4, at 1457.

57. *Id.*

58. *Id.*

59. Leatherman, *Barrier Island Management*, in 2 COASTAL ZONE '80, 1470 (B. Edge ed. 1980).

60. *Id.* at 1470.

centrates on preserving the islands rather than protecting shoreline construction. Paradoxically, the most effective stabilization technique—the only way to ensure that barrier islands will not be lost to erosion—is a hands-off policy that permits the islands to erode and migrate naturally.⁶¹ Nevertheless, because island migration conflicts with development, some accommodation of the two could be reached through land use policies, island density limits, and building setback lines.⁶² Land use policies should restrict development to stable areas of the islands. Density limitations might effectively limit the construction of hotels and condominiums. Construction setback lines could permit beach development only when proposed structures are located far enough from the shoreline to permit the islands to migrate freely.⁶³ These proposals offer a more permanent solution to island stabilization because they do not attempt to control the natural migration essential to barrier island survival.

III. EXISTING PROGRAMS FOR BARRIER ISLAND PROTECTION

A. *Acquisition and Wilderness Designation*

The federal government has acquired several barrier islands or portions of them through various programs.⁶⁴ The Land and Water Conservation Fund Act of 1965⁶⁵ created a fund for the enlargement of outdoor recreation opportunities,⁶⁶ from which more than 128 million dollars had been spent by 1978 to acquire barrier islands.⁶⁷ Because the primary purpose of the Act was expansion of recreation opportunities rather than promotion of

61. Baker, *Perspectives on Erosion: Barrier Island Management*, in 1 COASTAL ZONE '80, 1 (B. Edge ed. 1980)[hereinafter cited as Baker]. Implementation of dune management districts by state or local governments would allow natural migration. Gares, Nordstrom & Psuty, *Delineation and Implementation of a Dune Management District*, in 2 COASTAL ZONE '80, 1285 (B. Edge ed. 1980).

62. Sharma, *supra* note 4, at 1462.

63. Any front-row lots that are sold for development should be platted narrowly and deeply to allow dune migration. Baker, *supra* note 61, at 2.

64. Federal conservation agencies have acquired 620,000 acres of land on barrier islands. PROTECTING BARRIER ISLANDS, *supra* note 1, at vii. As of 1978, Cape Romain, South Carolina had the largest acreage of designated wilderness area on any barrier island in the United States. WORK GROUP REPORT, *supra* note 2, at 49.

65. 16 U.S.C. § 460 l-5 (1976 & Supp. 1979).

66. *Id.*

67. WORK GROUP REPORT, *supra* note 2, at 52.

land acquisition,⁶⁸ the legislation has limited importance in protecting barrier islands. Moreover, the Reagan Administration's commitment to limit further acquisition⁶⁹ can be expected to reduce the already limited effectiveness of the program.

The Wilderness Act⁷⁰ permits Congress to designate federally owned land as "wilderness areas," which "are [to be] preserved and protected in their natural condition."⁷¹ Wilderness designation is designed to "protect the islands' physical integrity and . . . prevent their unwise development."⁷²

Although the acquisition and wilderness designation programs offer the greatest possible protection to the barrier islands to which they are applied, only those islands that are not already developed qualify for acquisition or protection.

B. National Environmental Policy Act

The National Environmental Policy Act (NEPA)⁷³ established a policy to promote preservation of "the environment and biosphere."⁷⁴ To accomplish these goals, the Act requires that an environmental impact statement be prepared for all "major Federal actions significantly affecting the quality of the human environment."⁷⁵ This statement must include an analysis of potential adverse environmental effects and alternative actions.⁷⁶ Three purposes are served by the detailed statement:

First, it permits [a] court to ascertain whether the agency has made a good faith effort to take into account the values NEPA seeks to safeguard. . . . Second, it serves as an environmental full disclosure law, providing information which Congress thought the public should have concerning the particular environmental costs involved in a project. . . . Finally, and perhaps most substantially, the requirement of a detailed statement helps ensure the integrity of the process of decision by precluding stubborn problems or serious criticism from being

68. See 16 U.S.C. 460 l-4 (1976).

69. COASTAL ZONE MANAGEMENT, Feb. 25, 1981, at 3.

70. 16 U.S.C. §§ 1131-1136 (1976).

71. *Id.* § 1131(a)(1976).

72. WORK GROUP REPORT, *supra* note 2, at 48.

73. 42 U.S.C. §§ 4321-4361 (1976).

74. *Id.* § 4321 (1976).

75. *Id.* § 4332(2)(C)(1976).

76. *Id.*

swept under the rug.⁷⁷

Although the requirement of environmental impact statements affords some protection to barrier islands, the protection is weakened by a provision that "admits of some degree of flexibility and agency discretion in determining the contents of impact statements."⁷⁸ Moreover, because the range of agency action covered by the Act is broad, "the issues, format, length and detail of impact statements . . . must of course differ."⁷⁹ Finally, an impact statement is not required if the proposed federal action will not significantly affect the quality of the human environment.⁸⁰ Once an agency has adequately considered "the values set forth in NEPA and the potential environmental effects of the project"⁸¹ and determined that an impact statement is not necessary, the courts will uphold its judgment.⁸²

The National Environmental Policy Act also requires agencies to employ an "interdisciplinary approach" in planning and decision making.⁸³ Although this requirement does not guarantee precise coordination of agency efforts, each agency must, at a minimum, increase its awareness of other agencies' actions in overlapping areas. Although the Act recognizes that overall agency coordination is essential, progress toward coordination is inhibited by the Act's failure to establish a comprehensive network of guidelines for the agencies to follow.

C. *Coastal Zone Management Act*

The Coastal Zone Management Act (CZMA)⁸⁴ requires any federal agency "conducting or supporting activities directly affecting the coastal zone" or "undertak[ing] any development project in the coastal zone of a state" to "conduct or support those activities in a manner which is . . . consistent with ap-

77. *No East-West Highway Comm., Inc. v. Whitaker*, 403 F. Supp. 260, 280 (D.N.H. 1975).

78. *Scientists' Inst. for Pub. Information, Inc. v. Atomic Energy Comm'n*, 481 F.2d 1079, 1091 (D.C. Cir. 1973).

79. *Id.*

80. 42 U.S.C. § 4332(2)(C)(1976).

81. *Sierra Club v. Hassell*, 636 F.2d 1095, 1097-98 (5th Cir. 1981).

82. *Id.*

83. 42 U.S.C. § 4332(2)(A)(1976).

84. 16 U.S.C. §§ 1451-1464 (1976 & Supp. 1979).

proved state management programs.”⁸⁵ This provision limits the federal government’s flexibility in developing barrier island policies: if a state focuses on island development and erosion control rather than on preservation, federal compliance with the consistency requirements merely aggravates the problem.

The CZMA authorizes states to implement their own coastal management programs.⁸⁶ These state programs should provide for “the management of coastal development to minimize the loss of life and property caused by improper development . . . and by the destruction of natural protective features such as beaches, dunes, wetlands, and barrier islands.”⁸⁷ By July 1981, twenty-five states had approved coastal management programs under this act.⁸⁸

South Carolina’s coastal management program, administered by the South Carolina Coastal Council,⁸⁹ seeks to “achieve a rational balance between economic development and environmental conservation of natural resources in the coastal zone of South Carolina.”⁹⁰ As part of this program, the Coastal Council has the authority to permit or deny any alteration or utilization in a “critical area.”⁹¹ Because critical areas do not include the interior of barrier islands, the Council has no direct regulatory authority over entire islands.⁹²

As part of a specific barrier island policy,⁹³ the Council will

85. *Id.* § 1456(C)(1976).

86. *Id.* § 1452 (1976).

87. 16 U.S.C.A. § 1452(2)(B)(Supp. 1981).

88. Interview with Jack Smith, Planner, South Carolina Coastal Council, in Charleston, S.C. (Aug. 4, 1981).

89. The Coastal Zone Act of 1977 is codified at S.C. CODE ANN. §§ 48-39-10 to -220 (Supp. 1980). See U.S. DEP’T OF COMMERCE, STATE OF SOUTH CAROLINA COASTAL MANAGEMENT PROGRAM AND FINAL ENVIRONMENTAL IMPACT STATEMENT II-1 (1979)[hereinafter cited as COASTAL MANAGEMENT PROGRAM].

90. COASTAL MANAGEMENT PROGRAM at III-1.

91. Critical areas include coastal waters, tidelands, beaches and primary ocean front sand dunes. S.C. CODE ANN. § 48-39-10(J) (Supp. 1980).

92. Noncritical areas are indirectly affected by Coastal Council directions. Under the Coastal Zone Act, all state and local agencies must cooperate with the Council and administer their authority in accordance with the Act. S.C. CODE ANN. § 48-39-70(A) (Supp. 1980). Thus, in exercising their permitting authority for noncritical areas, the state and local agencies should follow the Council’s policies. The Council has recommended that local governments establish building codes, setback lines, zoning ordinances, and subdivision regulations. *Coastal Management Program*, *supra* note 89, at IV-59.

93. *Coastal Management Program*, *supra* note 89, at III-69.

approve permits for bridge and road construction only when "an overwhelming public interest" exists⁹⁴ and will approve the extension of public services to an island only to an extent that such services are within the island's natural carrying capacity.⁹⁵ Furthermore, absent special circumstances, the Council will not permit artificial erosion protection.⁹⁶ Although South Carolina's Coastal Management Program addresses some of the problems concerning barrier islands, it fails to provide the Coastal Council with direct permitting authority over entire islands. Without this authority, total protection of the islands is impossible.

The CZMA gives the states great flexibility in developing barrier island programs. The absence of comprehensive federal policies regarding the barrier islands, however, permits states to establish programs that may provide inadequate protection.

IV. PROPOSED FEDERAL LEGISLATION

In response to recent concern over barrier island problems, the United States Congress has considered enacting protective legislation.⁹⁷ Senator John Chaffee of Rhode Island has sponsored a bill to establish a Coastal Barrier Resources System, which would include undeveloped barrier islands along the Atlantic and Gulf Coasts.⁹⁸ The bill would prohibit new federal expenditures for infrastructure construction, erosion control projects, and flood insurance on undeveloped islands.⁹⁹ Although the Chaffee bill does not authorize acquisition of the islands, it provides for periodic reports that may recommend this preservation technique.¹⁰⁰ Even though the bill focuses on federal expenditures that have promoted island development, it neverthe-

94. *Id.* at III-71.

95. *Id.*

96. *Id.* at IV-57.

97. In 1979, Representative Phillip Burton sponsored the first barrier island protection bill. H.R. 5981, 96th Cong., 1st Sess. (1979). This bill advocated federal acquisition of undeveloped portions of barrier islands, but failed to address the fundamental need for federal policy coordination.

98. S. 1018, 97th Cong., 1st Sess. (1981)[hereinafter cited as S. 1018]. This bill is substantially similar to a bill proposed in 1980 by Senator Dale Bumpers, S. 2686, 96th Cong., 2d Sess. (1980), and a bill recently introduced in the United States House of Representatives by Representative Thomas Evans, H.R. 3252, 97th Cong., 1st Sess. (1981).

99. S. 1018, *supra* note 98 at § 5.

100. *Id.* at § 10.

less recognizes the importance of maintaining flood insurance for structures built before enactment of the legislation.

The Chaffee bill recognizes the adverse impact of development upon the survival of barrier islands. Legislation that attempts to limit or prevent further development of barrier islands is essential to the survival of the islands.

V. CONCLUSION

Barrier islands have suffered degradation as a result of federal programs that have directly or indirectly contributed to the development of the islands. Federal efforts to protect and preserve the islands have been uncoordinated and have conflicted with other government programs that encourage development of the islands. A comprehensive barrier island policy is essential to the survival of the islands. Legislation must address those problems unique to the islands and must provide the means to improve agency coordination. Until such measures are taken, the continued existence of the barrier islands will be further imperiled by the present rapid rate of development.¹⁰¹

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101. Barrier islands are being urbanized at the startling rate of twice that of the mainland United States. Although only three percent of mainland space is urban, fourteen percent of all island space is urban. PROTECTING BARRIER ISLANDS, *supra* note 1, at vii-viii.